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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,858	10/06/2003	Keith S. Radcliffe	IO-1090US	3186

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EXAMINER	
BARON, HENRY	
ART UNIT	**PAPER NUMBER**
2616	
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06/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	**Application No.** 10/679,858	**Applicant(s)** RADCLIFFE ET AL.
	Examiner Henry Baron	**Art Unit** 2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/06/2003 and 2/1/2005 per amendment* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *10/07/2004*.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9,1-15, and 17-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Sorensen, (U.S. Patent Application 2002/0061009). Claim 10 stands cancelled.

3. Regarding Claims 1, 7, and 13 Sorenson teaches of a wireless communication system, a method of wireless communications, and a wireless communication apparatus comprised of nodes (Abstract), with; a) a serverless physical layer, (3: [0032], read ad-hoc), b) a virtual layer (3: [0033], read second node determines whether to establish the connection between the first node and the second node based upon the comparison); and c) an application layer comprising a plurality of independently operating applications. (Figure 5 and 1: [0012]).

4. With regards to Claims 2, 8, and 14 Sorenson further teaches the nodes being comprised of a protocol layer (2: [0017], read NAL); a Media Access Control layer (4: [0047], read Bluetooth MAC address); and a Hardware Abstraction layer (Figure 5, e.g. LMP and L2CAP layers).

5. Regarding Claims 3-4, 9, and 15, Sorenson teaches of the application layer comprised of configuration software that is operable on several layers (5: [0063]) and where at least one independently operating application migrates between nodes. (2: [0019]).

6. With regards to Claims 5,12, and 18 Sorenson teaches in (4: [0050-0052]) the concept of Administrative Domain Identifier (ADI), which is unique for distinct networks. The ADIs represent a Virtual ID from which Virtual LANs (or Administrative Domains) are formed.

7. Regarding Claim 6, Sorenson teaches of a system comprising a protocol layer for dynamically adjusting information routing paths between nodes as discussed in (5: [0057]) where it is feasible to perform IP routing, or some other higher-level interconnection mechanism in a node being connected to two distinct Administrative Domains.

8. With regards to Claims 19 and 20 Sorenson teaches (1: [0019]) that Bluetooth provides wireless, ad hoc networking between laptop computers, which provide to Bluetooth a physical layer interface.

9. In view of Claims 21 and 26, Sorenson teaches of a multi-node data handling system and a method of handling data in a multi-node system comprising of nodes in wireless communication network where a first node has a physical layer including a wireless communication device for receiving information in the form of data packets from at least a second node. (3: [0033]) and the first node further includes a computing device (3: [0035-36]) implementing a virtual layer comprising a Virtual LAN (3: [0033] and (4: [0046] read VLAN as administrative domain); further in (3: [0036]) Sorenson teaches of an application layer comprising one or more computer-readable programs that can receive from the virtual layer only those data packets utilized by the applications layer and uses computer-readable programs to process the data packets received by the application layer.

10. With regards to Claim 22 and 27 Sorenson teaches of a multi-node data handling system and a method of handling data in a multi-node system, the nodes being comprised of a protocol layer (2: [0017], read NAL); a Media Access Control layer (4: [0047], read Bluetooth MAC address); and a Hardware Abstraction layer (Figure 5, e.g. LMP and L2CAP layers).

11. Regarding Claim 23 and 24, 28 Sorenson teaches a multi-node data handling system and a method of handling data in a multi-node system with an application layer comprised of configuration software that is operable on several layers (5: [0063]) and where at least one independently operating application migrates between nodes. (2: [0019]).

12. With regards to Claim 25 and 29, Sorenson teaches in (4: [0050-0052]) the concept of Administrative Domain Identifier (ADI), which is unique for distinct networks. The ADIs represent a Virtual ID from which Virtual LANs (or Administrative Domains) can be formed.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 11, 17 and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sorensen, (U.S. Patent Application 2002/0061009) in view of Murto et al. (U.S. Patent Application US 20040213409), hereafter Murto and in further view of Zhang, Second International Conference on Mobile Data Management, pg 233-234, Introduction, Hong Kong in January 2001, hereafter Zhang.

15. Sorenson teaches all of the limitations of the wireless communication apparatus of Claim 13, and teaches that (1: [0012]) high level protocol or application layer represents protocols that may or may not be Bluetooth specific, but does not specifically teach of a GPS receiver as an embodiment of application layer.

16. By contrast, Murto teaches of a Global Positioning Satellite (GPS) Wireless Application Protocol (WAP) (3: [0037] and Figure 1) used in conjunction with a Universal Description, Discovery and Integration (UDDI) registry that enables users to quickly, easily and dynamically find businesses and services on the Internet.

17. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to modify the ad-hoc wireless teachings of Sorenson to include the GPS Wireless Application Protocol (WAP) teachings of Murto.

18. The addition of a GPS Wireless Application Protocol (WAP) would provide ad-hoc users with a means to dynamically locate Internet registered businesses and services in their environment. This would make a subscription to the ad-hoc wireless service even more attractive.

19. In the case of Claims 11 and 17, Sorenson teaches of a routing mechanism to route packets within a scatternet stating that there are several ad-hoc routing protocols for this purpose. (2: [0017]).

20. However, Sorenson is silent with regards to teaching communication routing table that can dynamically change geometries of node positions to direct communication routes.

21. By contrast, Zhang teaches a communication routing table that can dynamically change geometries of node positions to direct communication routes are used in ad-hoc networks.

22. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to modify the ad-hoc wireless teachings of Sorenson to include Zhang's routing tables that can dynamically change geometries of node positions.

23. Such a modification would be beneficial, as it would allow users seem-less mobility and location flexibility.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Baron whose telephone number is (571) 270-1748. The examiner can normally be reached on 7:30 AM to 5:00 PM E.S.T. Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bruce can be reached on (571) 272-2487. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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